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Inclusive, Interactive Classroom as Student-Learning Facilitator

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Keywords

Inclusive classroom, Interactive classroom, Student learning, Hybrid courses, Qualitative data, Quantitative data

The Inclusive, Interactive Classroom as Student-Learning Facilitator

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Abstract

Using principles underlying the social constructivist approach, we redesigned an undergraduate course on social problems, seeking to employ three learning activities (online assignments and small-group and class discussions) to facilitate knowledge construction by students and promote their intellectual capabilities and critical-thinking skills. We collected qualitative and quantitative data from students enrolled in the redesigned, hybrid course (it comprised class meetings on campus plus online work), two sections of which were taught. Students in both sections completed two feedback evaluation surveys about satisfaction and learning; this survey data comprised narrative comments completed across the fall and spring semesters of 2010–2011. We examined the data, seeking social processes linking the three learning activities to student satisfaction and to student learning. Results showed a link between student satisfaction and student learning generated from, notably, in-class small-group and class discussions. Some implications for pedagogy are outlined.

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Introduction

Introductory collegiate sociology courses (Introduction to Sociology, Social Problems, and the like) typically introduce students to the sociological imagination and to the roles social and cultural factors play in individual and group behavior and in social issues: what Grauerholz and Bouma-Holtrop (2003, p. 3) call *critical sociological thinking*. The broad content of such courses (which are often part of general education curricula), combined with the courses' implicit questioning of the status quo and of social inequality, drives instructors to continually seek class activities that facilitate learning. Finding assignments that are relevant and appropriate can be challenging, given the myriad of valid sociological lenses through which learners might examine any issue (Howard & Zoeller, 2007; Khanna & Harris, 2009).

A new learning paradigm in contemporary American higher education is gradually confirming that the important social construct *student learning* will need to convey a new symbolic meaning (Lo, Johnson, & Tenorio, 2011). Student learning goes well beyond retaining or memorizing concrete facts comprising subject content, to actually achieving *deep learning* (Blumberg, 2009; Lo, 2010b; McKinney, 2008; Singleton & Newman, 2009). Ideally, then, as students study, they develop the critical thinking capabilities requisite to

appreciating various viewpoints, applying various theories, and solving various problems. Such critical thinking may perhaps be the foundation today's college students truly require in order to be flexible enough for an evolving labor market and sociopolitical milieu; such thinking may be the foundation of lifelong learning (Lo & Prohaska, 2010). Taking the *social constructivist approach* allows for the elaboration of deep learning as a product of college students' social interactions with fellow class members as well as of their integration of new knowledge with knowledge obtained earlier and with personal experience of the matter under study (Jang, 2007). According to the social constructivist approach, such interactions and integration help generate knowledge with new meaning (Jang, 2007). As students engage in negotiation, discourse, and online posting of questions and answers, consensus can be built and deep learning achieved (McKinney, 2008; Tobin & Tippins, 1993).

In light of the new meaning of *student learning*, we find the roles of students, faculty, and university administrators being transformed as colleges and universities are recognized to be not only providers of instruction but producers of learning (Barr & Tagg, 1995). At center stage in the production process are the students, who actively construct knowledge to cultivate in themselves the liberal education characterized by "intellectual judgment, social responsibility, and integrative learning" (Schneider, 2003, p. 3). Learning—not teaching—becomes education's goal, and faculty are henceforth accountable for creating environments that facilitate knowledge construction by many kinds of students, accommodating the production of active student learning (Barr & Tagg, 1995; Karagiorgi & Symeou, 2005; Lo, 2010b). These environments of opportunity for active, deep learning can incorporate both self-directed and group activities, since either can facilitate the broadening of students' knowledge via flexible linking of intellectual concepts to a variety of real-life contexts (Karagiorgi & Symeou, 2005; Lo et al., 2011). One example assignment requiring the application of intellectual concepts in the real world would be for students to construct and write about solutions to some problem, after analyzing, comparing, and synthesizing relevant information (Jacobs, Ott, Sullivan, Ulrich, & Short, 1997; Singleton & Newman, 2009).

Of many available activity-based learning strategies, collaborative activities have proved especially conducive to student learning (Garfield, 1993; Kanuka & Anderson, 1998; Karagiorgi & Symeou, 2005; Rinehart, 1999). Collaborative activities facilitate learning or knowledge construction by virtue of their interactive nature, involving peers and others in intellectual and mental development. According to Vygotsky (1978), such development cannot be experienced apart from such social interaction but takes place solely in what he named the *zone of proximal development*. Collaborative learning is knowledge constructed via interaction among faculty and students or simply among students through group activities and peer education (Albers, 2008; Nilson, 2003). Collaborative learning is especially effective when the mutual cooperation of group members is the main feature of a group's activities (Johnson & Johnson, 1999). When group members are assigned to become positively interdependent in order to solve a problem or achieve a mutually valued goal, instructors often see cooperative learning leading to students' joint success and reciprocal support (Johnson, Johnson, & Smith, 2007). Research results show that collaborative learning successfully supports content mastery, critical thinking, problem solving, and honing of communicative skills (Chermak & Weiss, 1999; Cooper, Cox, Nammouz, Case, & Stevens, 2008; Gokhale, 1995). Sociologists have long understood the contributions of small groups to the processing of information, exchange of ideas, and solution of problems in the classroom (Billson, 1986; Misra, 1997). As students with different backgrounds convey their unique experiences and social realities in interaction

with classmates, new ideas take shape (Hickey & Granade, 2004; McKinney, 2008).

Adopting American higher education's new learning paradigm—aiming to tap the rich learning resource that is the group process—we thoroughly redesigned an undergraduate social problems course, filling the syllabus with active and collaborative learning activities meant to improve both student learning and student satisfaction. Active and collaborative learning activities' value to student learning and student satisfaction has found empirical support in research studies (Lo, 2010a, 2010b; McKinney, 2008; Mohamed, 2008). The present evaluation of the redesigned social problems course added newly collected quantitative and qualitative data on how student learning is affected by social processes characterizing the learning activities pursued in a course. Our evaluation centered on social influence over individual and group behavior, both in the classroom and in life outside the classroom; it explored the paths that select learning activities may map toward inclusive, interactive classrooms and student learning.

When a student finds that his or her own social reality is insufficiently complex to accommodate a fellow student's social reality, a path (or paths) may appear leading away from his or her old moral views toward more nuanced views. Many a student, upon beginning college, is characterized by specific moral views featuring a firm conviction of "right" versus "wrong," and by a certain resistance to acknowledging social inequality (Eckstein, Schoenike, & Delaney, 1995; Harlow, 2009; Hedley & Markowitz, 2001). To see and follow the path away from old views is to construct new knowledge, amplifying personal experience with knowledge of the experience of students from walks of life previously unimagined. The mind is opened, and understanding of the various sociological perspectives and their application to life deepens: critical thinking occurs.

The Redesigned Social Problems Course

The present evaluation's lead author (whose particular interest was evidence-based learning activities' capacity to foster student learning) completely redesigned a 200-level course at a large research university in the American Southeast. The course was one of a number meeting the institution's general education requirements in the area of social/behavioral science. Before redesign, its format had comprised primarily lectures (Lo & Prohaska, 2010); after redesign, the hybrid course features a weekly 75-minute class meeting plus online assignments. Students' online assignments include chapter exams, survey questions, and video questions, which are to be completed by each student individually and submitted each week; along with two threaded discussions to be completed twice in the semester. Chapter exams ask randomized questions drawn from the textbook's test bank (Henslin & Fowler, 2009); survey- and video-based questions reflect content of magazine articles and video clips related to textbook content. Text chapters are organized such that, each week, a particular social problem (or set of connected social problems) is covered. Each threaded discussion requires students to respond to an initial prompt and then comment upon another student's response to that prompt. The threaded discussions offer a limited opportunity for students to interact online, which allows students not inclined to speak in a public forum to express their thoughts via a different medium. Other assignments in the course are an autobiography due at the semester's start and submitted online; a comprehensive final exam at semester's end; and two feedback evaluation surveys (distributed at mid-semester and at semester's end). Students have access to most of

the online assignments from the beginning of semester; no makeup work is allowed, but students may be absent from up to two class meetings without penalty.

At each 75-minute class meeting, students complete collaborative learning activities in a small-group setting as well as with the class in its entirety. Drawing on assigned reading and/or viewing, for each class meeting the instructor prepares several questions to be answered by small groups of students (a copy of the questions is given to each group). Answering usually requires integrating textbook material with students' personal experiences and with the week's video or magazine content. Group members alternate as *recorder* and *speaker*, the former responsible to write down responses the group generates, the latter to read the responses aloud (when invited by the instructor to do so) during discussions with the entire class. The small groups normally have 20 minutes to record their responses.

During a class discussion, the instructor selects several groups to present their answers; in addition, the instructor encourages all students to respond, from their individual perspectives, to the questions and group answers. Once the small groups' work has been presented and discussed, the instructor typically shows a video relevant to the week's social problem(s). The viewing is followed by further class-wide discussion, always covering (a) social construction of social problems, (b) three sociological perspectives' application to explanations of the week's social problem(s), and (c) connections among theories, students' personal views, and real-world issues and problems. An example is group discussion of racial disparities in health. Students were directed to undertake discussion—within their small groups—that used either functionalism, conflict theory, or symbolic interactionism (distinct and important sociological perspectives) to understand how such disparities became a social problem and to suggest solutions appropriate to the perspective. Once students completed these tasks in groups, the instructor had each group present its explanation and solutions. In this way, each student was introduced to the concept of racial health disparities from each perspective. The class then viewed a video presenting several solutions to the problem of racial health disparities, following that up with a class discussion on whether and why the proposed solutions were consistent with a specific perspective's understanding of this social problem. As they engaged in group and class discussions, students saw that the existence of health disparities can be explained in several ways (each a function of social factors—for instance social inequality). In addition, students had worked at using an important sociological perspective to explain health disparities, and moreover they understood all three perspectives' insights and solutions as to real-world health disparities.

An evaluative grade is associated with each online or in-class assignment. A graduate assistant aids in grading, using criteria specified by the instructor. Grade criteria are made available to students as the semester begins, in the syllabus. Grading is normally complete within 1 week of an assignment's due date, to help students track their progress.

In all, since 2009, four sections of the redesigned course have been offered. In the spring 2009 semester, two sections were taught, each enrolling about 65 students. In fall 2010, one section enrolled 50 students; in spring 2011, one section enrolled 35 students. Assessment of the spring 2009 data led the instructor of the two subsequent sections to incorporate (in the class-wide discussions) some additional materials concerning the application of sociological theory. The present study focused on student learning in the fall 2010 section and the spring 2011 section.

Embracing the new paradigm under which student learning surpasses instructor teaching in importance, the instructor made four changes to the course, each reflecting a principle vital to the paradigm. These changes are summarized in Table 1.

Table 1.
Curriculum Changes Emphasizing Student-Centered Learning

	Redesigned Course	Traditional Course
Knowledge of Textbook Content	Students acquire, and are tested on, familiarity with content prior to class.	Students are expected to master content during class and are tested on such content after class.
Learning Path	Dynamic and emerging; knowledge as social construction may not occur at the same time for all students.	Uniform and static; students are exposed to content at the same time.
Role of Instructor	Instructor is a learner and moderator.	Instructor is to deliver class materials and disseminate knowledge.
Sources of Potential Knowledge	Instructor's and students' backgrounds and experiences differ, enriching knowledge construction.	Instructor is the subject-matter expert.

First, to ensure familiarity with the textbook content providing the basis of the day's collaborative activities—and familiarity, as well, with real-world issues raised by that content—students were newly assigned to complete on their own, *prior to* each 75-minute class meeting, a relevant chapter exam and two assignments, all online. Completing these was intended to ensure students' initial familiarity with content to be covered in class, paving the way for synthesis and real-world application of printed information (Hoeft, 2012). Reading assignments are often a part of traditional, lecture-driven classes. In such classes, however, students often acquire details of readings in class, as an instructor "delivers" content; it may thus be the instructor's interpretation of readings that comes to guide student understanding of readings' content.

Second, learning in the course was treated as a process as well as a social construction. Engagement in reflection—answering questions and solving problems by writing and talking in small groups—allowed students to construct knowledge and practice critical thinking (Jang, 2007; McKinney, 2008; Zengaro & Iran-Nejad, 2007). In the small-group setting, students were to answer specific questions (framed by the instructor) concerning theory application and ways to resolve a problem. Since the same grade would be issued to all members of the group, reflecting the appropriateness of its answers and solutions, students tended to work cooperatively. In interactions with fellow group members, students deployed prior knowledge of the subject matter (often obtained via the required online chapter exam

and assignments) as they sought the best responses. After each such reflection experience, a class-wide discussion followed directly, generating immediate feedback that helped refine and cement into place the knowledge just constructed (Albers, 2008; Billson, 1986; Singleton & Newman, 2009). In contrast, in a traditional class, learning paths are more uniform and static. That uniformity and lack of dynamism hint at a hidden assumption: that all students will grasp introduced textbook content and other materials more or less at the same pace.

Third, the revised course entirely turned its back on lecture-driven class structure. No lecturing sought to convey information, because the paradigm called for a learner-centered atmosphere in which even teacher is recast as learner. Instead, exchange of information or knowledge happened during class discussions and through series of questions and answers (Smith, 1996). In presenting herself as a learner, the instructor signaled the students to take responsibility for learning, and she promoted an atmosphere of instructor–student equality and active learning in the classroom (Mishna & Rasmussen, 2001). With the instructor moderating the class-wide discussions and encouraging expression of various perspectives on social problems, students tended to view these discussions as extensions of their small-group work, augmented with additional ideas about problems and their potential resolutions. In this manner, as they actively produced knowledge, students steadily across the semester strengthened critical-thinking skills central to the lifelong learning demanded of them by the current global job market. Moreover, class members de-emphasized the power differences salient to traditional lecture-driven classrooms, since the instructor worked at not portraying herself as the expert handing out knowledge to nonexperts. Courses having the lecture format can, it is true, include class discussions. However, these discussions typically work with only that information that has been delivered via lecture (Cox, 2009).

Fourth, the instructor set aside class time for capitalizing—via unhurried, open discussion of social issues—on students’ diverse experiences and viewpoints, which offer important contributions to knowledge construction. At this particular university Social Problems serves as a general education course. Thus it draws students from numerous academic disciplines and backgrounds, creating diversity in the classroom. The disciplinary and personal diversity enlarges the pool of information available for students’ social construction of knowledge. In a traditional lecture-driven class, in contrast, that pool of information is typically limited to instructor expertise in a subject.

The four changes incorporated in the redesigned course were meant to create an environment that would help students maintain open minds while they cooperatively and actively constructed knowledge and used critical thinking (Lo, 2010b). All four derived from (a) fundamental respect for students’ own diverse experiences as sources of valuable information; and from (b) trust in the capability of students to assume responsibility for learning. Affirming these two things, the instructor’s greatest need during the course was ongoing readiness to encounter fresh, unsuspected opinions—as well as skills and abilities—in students as she moderated class discussions, and an ability to illustrate the appropriateness of particular theories for explaining particular social realities, without discouraging students’ continued theory application.

Data and Measures

Twice during the course, students were queried for feedback concerning learning activities, instructor performance, and the course itself. Both closed and open-ended questions were included in each survey; students earned participation points for completing each survey. The instructor designed survey questions with the goal of understanding students' level of satisfaction with specific learning activities and their perceived learning; questions were answered online, and students were assured responses would be used only to improve the course. Employing the two online evaluations from fall 2010 and the two from spring 2011, the present study examined students' suggestions and their narrative responses to the opened-ended questions, looking for social processes that were perhaps at work in particular learning activities and were perhaps facilitating student learning in the course. As the study was carried out, no personal identification was associated with any feedback obtained from the surveys. The conduct of the study was approved by the Institutional Review Board of the university at which both sections of the course were taught.

Each semester, the first evaluation took place shortly after mid-semester, and the second evaluation took place just before the term ended. The present study analyzed the data collected, along with data constituted by the students' final course grades. Specifically, the survey or evaluation data were generated from students' responses to the first evaluation's request for general commentary about the course; and from three open-ended questions along with 10 closed questions from the second evaluation, the latter soliciting students' subjective assessments of how much learning they associated with specified learning activities. The three open-ended questions were "What can I, as the course professor, do to improve your learning?"; "What can you do to improve your learning?"; and "Thinking about the work you did so far, what important questions do you think remained unanswered, and what was the most worthwhile thing you learned so far?" Students in the two sections of the course were presented with identical questions eliciting data for this study.

In analyzing the data, a careful reading of each student response or answer preceded the two researchers' two-step development of several categories that could appropriately consider the variety of student responses. These categories were based on (a) the general commentary requested by the first evaluation, and (b) the three open-ended questions from the second evaluation. Reviewing this feedback, we first established a list of themes meant to capture the essential import of the responses. Second, we collaborated on a final categorization reflecting the themes. Working independently, we each used the resulting schema to categorize comments and suggestions communicated by the surveyed students' words and sentences. The final categories arrived at were (a) satisfaction with online assignments, (b) satisfaction with group/class discussions, (c) satisfaction with course, (d) satisfaction with teacher, (e) presence of a variety of perspectives and views, (f) knowledge construction, and (g) inclusive classroom. We assigned each student response to one of these categories and then determined whether the response indicated the student's satisfaction ("satisfying") or dissatisfaction ("in need of improvement") with that aspect of the course. Not all enrolled students provided all requested feedback; of those who did, some commented at greater length than others.

We employed the second evaluation's 10 closed (i.e., not open-ended) questions to measure students' perceptions of how much learning they attributed to specific learning activities within the course. The 10 questions referred to five such activities (in-class

assignments, online survey questions, online video questions, online exams, online discussions), probing students about two levels of learning associated with each: capacity to engage student attention and capacity to increase student’s deep thinking about lesson content and its application. Offered responses on the six-point scale we employed were (1) not at all, (2) to a small extent, (3) to some extent, (4) to a moderate extent, (5) to a great extent, and (6) to a very great extent. Based on students’ responses to the 10 questions, we developed a perceived-learning index indicating for each student the average score across the five activities. The index demonstrated high internal consistency (Alpha = 0.9). We also employed the students’ final course grades to measure student learning less subjectively.

In neither first nor second evaluation did we ask students directly about satisfaction with the course. However, as part of its ongoing semester-end quality-assurance program, the university collected data on students’ satisfaction with the class and with their own learning. The aggregated data covering the two semesters encompassed students’ (1) rating of the course; (2) rating of the instructor; (3) estimate of the extent of learning achieved in the course; and (4) assessment of the course’s value as a learning experience.

Participants

Of 50 students enrolled in the course in fall 2010, 2% dropped the course; of 35 enrolled in spring 2011, 6% dropped the course. Table 1 describes these students’ gender, class standing, and academic majors. Most students in the sample were female; were first-, second, or third-year undergraduates; and were majoring in a social science.

Table 2.
Descriptive Statistics for Study Participants

	Fall 2010	Spring 2011
Female Gender	57%	68%
Class Standing		
Freshman	22%	27%
Sophomore	31%	39%
Junior	24%	24%
Senior	22%	9%
Academic Major		
Social Sciences	45%	67%
Physical Sciences	12%	6%
Humanities	4%	3%
Business	6%	3%
Education	16%	15%
Engineering	16%	6%
Total	49	33

The larger size of the fall class meant we obtained more commentary about it than about the spring class. In addition, the city where the university is located was devastated by tornadoes near spring semester's end, and school closed early and abruptly, meaning many students in the spring course lacked opportunity to complete the second evaluation. Feedback on the spring course was therefore significantly truncated. Fall students provided 93 feedback evaluations (46 completed and submitted the first evaluation, and 47 completed and submitted the second evaluation). Spring students provided 46 feedback evaluations (28 first evaluations and 18 second evaluations).

Results

Again, this study involved two student feedback surveys administered in two undergraduate social problems courses (a fall 2010 section and spring 2011 section) having a hybrid format of in-class plus online assignments. The study linked surveyed students' narrative comments to somewhat less subjective measures of student learning incorporating students' final course grades and students' perceptions about five learning activities' effectiveness. From the narrative comments, the researchers identified several themes subsequently employed to categorize students' words and sentences. We determined whether each categorized survey response indicated a student's satisfaction, or dissatisfaction, with an aspect of the course, seeking to elaborate social processes that perhaps enhanced student learning.

Table 3 shows descriptive statistics for all included variables. We developed seven themes from the two groups' narrative responses to one open-ended question from the first evaluation and three from the second evaluation. Themes were (a) *satisfaction with online assignments*, (b) *satisfaction with group/class discussions*, (c) *satisfaction with course*, (d) *satisfaction with teacher*, (e) *presence of a variety of perspectives and views*, (f) *knowledge construction*, and (g) *inclusive classroom*. We designated each theme either *satisfying* or *in need of improvement*, based on whether responding students noted that an activity or atmosphere had either been valued and found satisfying, or might benefit from modification.

Students enrolled in the course in fall 2010 and spring 2011 were in general satisfied with the redesigned format that reserved ample time for group activities and class discussions, at the same time mandating individual work online. Students described the course as a whole as "well-organized" and "intellectually challenging" and said they enjoyed attending class. They liked "working in groups" en route to "organized class discussions," with "controversial topics covered." Feedback questions about the course as a whole, about in-class discussions, and about online assignments prompted some criticism of technological problems and of excessive weekly online assignments; some students expressed preference for traditional courses (lectures, assignments prepared and submitted on paper). However, students' overall satisfaction with the course as a whole, with the group/class discussions, and with the online assignments was indicated by the fact that a significantly higher number of students out of those who made specific comments assigned to the categories, indicated they were (versus were not) satisfied with the online assignments (62%, $n = 52$), with the group/class discussions (72%, $n = 57$), and with the course (87%, $n = 62$).

Furthermore, students overall were satisfied with the instructor's role in the course, as indicated by the fact that a majority of pertinent comments approved (a) of her use of

videos, examples, and questions to facilitate discussion; (b) of her willingness to allot class time for student debate over social problems; and (c) of her maintenance of a comfortable environment for students. The feedback evaluation also indicated, however, students' perception of a need for additional (a) teacher control over expression of "radical" opinions and (b) leniency concerning assignments submitted late.

Table 3. Descriptive Statistics for All Included Variables

	Mean / %	S.D.	N
Final Score of Course	89.14	10.82	80
Subjective Perception of Student Learning	4.05	0.89	65
In-Class Assignments Capture Attention	4.43	1.10	65
In-Class Assignments Increase Deep Thinking	4.54	1.13	65
Online Survey Assignments Capture Attention	3.60	1.22	65
Online Survey Assignments Increase Deep Thinking	3.77	1.22	65
Online Video Questions Capture Attention	4.08	1.12	65
Online Video Questions Increase Deep Thinking	4.06	1.16	65
Online Exams Capture Attention	4.45	1.31	65
Online Exams Increase Deep Thinking	4.09	1.25	65
Online Discussions Capture Attention	3.66	1.36	65
Online Discussions Increase Deep Thinking	3.83	1.26	65
Themes of Written Comments Satisfaction			
with Online Assignments	62%	0.49	52
Satisfaction with Group/Class Discussions	72%	0.45	57
Satisfaction with Course	87%	0.34	62
Satisfaction with Teacher	88%	0.33	59
Variety of Perspectives & Views	92%	0.27	51
Knowledge Construction	88%	0.33	41
Inclusive Classroom	85%	0.36	34

The three remaining themes cover written comments describing students' pleasure in encountering the diverse views of others through in-class exchange of ideas; students' perceptions of how knowledge is constructed; and the classroom's inclusive atmosphere. The feedback data made clear that most students enjoyed exposure to new ideas expressed by students from different backgrounds (92%, $n = 51$), an experience that, for instance, helped them "learn from others' views." In describing the learning process, student comments ranged from a judgment that progress had been "rocky at first because not thinking out of box," to pride in having been able to "learn to debate and give my opinion with confidence." We assigned 41 narrative student responses to this thematic category (i.e., knowledge-construction process); 88% of the responses cited student satisfaction with the knowledge-construction process. Students indicated perceiving an inclusive classroom,

in that they described feeling “respected by others” and thus “comfortable discussing and contributing in group as well as class.” In all, 34 students made comments that we assigned to the inclusive classroom category; 85% of the comments indicated satisfaction with the classroom’s inclusiveness.

The following excerpts suggest the importance to the learning process of both social interaction and inclusiveness.

“I sometimes find it troubling when I am caught between two issues. I find myself jumping from side to side as the discussion goes on. The best thing I have learned was to see my tendencies of thinking towards social problems. I can see which [sociological] theory I am using, and why I am using each particular one. I can also label myself as leaning toward one of the theories more than the others. I also can look at new social problems that come up, and I can pick out different views on them. I can divide them up into the 3 theories by what I know about the issue. I have also learned about several different social problems that are hurting our world today, and how I can help fight them.”

This excerpt illustrates a process of knowledge construction that incorporates (a) lessons gained from others’ views of a social problem and (b) guidance from a selected theoretical perspective. This student also clearly linked textbook content to real-world situations.

“Sometimes I would come into [class] carrying one opinion on a matter, and then by the end of the [class], I was unsure of which opinion was best. Questions cause me to think. Thinking helps me to learn.”

This excerpt suggests how closely aligned the process of knowledge construction is with the offering of various perspectives and observations by classmates and the instructor during small-group and class discussions.

“I feel that the most important thing I learned is to express my ideas while respecting others. I feel that other students are learning how to do this as well. In our class discussions there are always radical and conservative ideas. No one ends up offended. I think that is great. That is how college is supposed to be, diverse. We can present all sides to a social problem and learn how others think.”

By respecting others’ perspectives, this student understands that he/she is treated the same in the process. This excerpt indicates the benefit that eventually accrues to all students as a result of respectful social interactions in a positive and cooperative learning environment.

"I feel [the professor] has done a great job in teaching us these concepts. Understanding sociological issues makes me a 'global' person, seeing my world as very small compared to a larger global view of life. Studying social problems helps me to be less prejudiced, more understanding and compassionate toward others. Sociology helps me to be less ethnocentric. Sociology is often a difficult course to study, because most people only like to discuss/read/think about their own geographic area, or about people who are most like them. Knowing about people who are different than me helps me to be a better person."

This student recognizes that different human beings lead divergent lives under divergent conditions, which apparently prompts the student to weigh social problems more objectively than had been possible absent an introduction to sociological concepts.

Descriptive statistics concerning final course grades and students' perceived learning in five learning activities comprise some of the findings presented in Table 3. The average final grade for the 80 students enrolled in the two sections was 89% ("B"). In all, 65 students responded to feedback evaluation questions concerning their perceived learning in five learning activities. The 65 reported that online assignments and online discussions had engaged their attention to a degree ranging, on average, from "to some extent" to "to a moderate extent"; with the *same* average range describing their perception that these online tasks had increased their deep thinking. In contrast, the 65 students reported on average that in-class assignments, online video questions, and online exams engaged their attention to a degree ranging from "to a moderate extent" to "to a great extent"; and again, this same range described their perceptions of these assignments' efficacy concerning increased deep thinking. Our perceived-learning index, which was composite and comprised all 10 questions about course learning activities, showed that students perceived learning activities to have facilitated their learning to a moderate extent.

In an effort to understand specific processes and correlates responsible for student learning, we linked our seven themes to the study's student-learning variables (i.e., final scores or grades, students' perceived learning; see Table 4). The student-learning variables had been measured continuously; in contrast, variables (categories) reflecting the seven themes were measured dichotomously (*satisfying* versus *in need of improvement*). We used *t*-testing to evaluate mean differences in the student-learning variables between respondents who indicated satisfaction and those who indicated a desire for modification. We did not observe any significant relationships between any of the developed thematic categories and the final-grade variable. For the perceived-learning variable, however, five significant results were observed. Specifically, respondents who perceived a high level of learning via a specific learning activity(ies) were associated with reported satisfaction with online assignments ($t = 2.23, p < .05$), with group/class discussions ($t = 2.48, p < .05$), and with the course in general ($t = 4.75, p < .01$); and moreover tended to report perceiving construction of knowledge ($t = 3.22, p < .01$) and classroom inclusiveness ($t = 2.23, p < .05$) ongoing in the classroom during the course. The two thematic categories concerning teacher's role and presence of various student views exhibited no significant relationships with the perceived-learning variables.

Again, we did not collect individual data asking students directly about their satisfaction, but the university did. Results of the university's semester-end quality-control survey enhanced the findings of our study. In the university's survey, students generally expressed strong satisfaction, giving average ratings of 4.37 and 4.3 to the course and of 4.68 and 4.60 to the instructor, in fall 2010 and spring 2011 respectively. Scale anchors ranged from 1 *failure* to 5 *excellent*. Students also reported strong perceived learning in the course. Students agreed with a statement deeming the course a valuable learning experience, assigning on average a 4.6 for fall 2010 and a 4.26 for spring 2011, using a scale ranging from 1 *strongly disagree* to 5 *strongly agree*. For fall 2010 and spring 2011, respectively, asked how much they had learned in the course, students' average responses were 4.68 and 4.7, using a scale ranging from 1 *nothing* to 5 *a great deal*.

Table 4.
Correlates of Subjective and Objective Student-Learning Measures

		Final Score	N	Perceived Learning Via Learning Activities		N
Satisfaction with Online Assignment	Satisfying In Need of Improvement	91.02	32	4.22	*	28
Satisfaction with Group/Class Discussions	Satisfying In Need of Improvement	90.71	41	4.20	*	38
Satisfaction with Course	Satisfying In Need of Improvement	90.45	16	3.58		16
Satisfaction with Teacher	Satisfying In Need of Improvement	91.14	54	4.21	**	48
Different Viewpoints	Satisfying In Need of Improvement	88.40	8	2.93		8
Knowledge Construction	Satisfying In Need of Improvement	90.79	52	4.19		46
Inclusive Classroom	Satisfying In Need of Improvement	89.23	7	3.80		7
	Satisfying In Need of Improvement	90.52	47	4.09		41
	Satisfying In Need of Improvement	87.73	4	3.78		4
	Satisfying In Need of Improvement	91.48	36	4.20	**	34
	Satisfying In Need of Improvement	93.50	5	3.08		5
	Satisfying In Need of Improvement	92.04	29	4.21	*	28
	Satisfying In Need of Improvement	98.27	5	3.34		5

* $p < .05$

** $p < .01$

Note: *T*-testing was used to evaluate mean differences in final score and in perceived learning.

Discussion

Qualitative and quantitative data obtained from a total of four evaluative surveys completed by students in the nontraditional social problems course indicated high levels of student satisfaction and learning gained from the course. The high levels were confirmed by aggregated results of a university-wide student opinion survey at semester's end. Our own results confirmed earlier studies' findings of positive effects made by collaborative activity on student satisfaction and learning (McKinney, 2008; Mohamed, 2008). The descriptive statistics in Table 3 show that, overall, students accepted the use of in-class and online work to facilitate their learning, although reporting in-class assignments to be the better way to learn and increase deep thinking. Statistics in Table 3 also point to students' preference, in a face-to-face classroom context, for collaborative learning activities.

Our study participants' written comments described their special satisfaction derived from working in small groups to answer questions just prior to joining in class-wide discussion of answers. It is likely their satisfaction reflects their reported preference, in college classes, for collaborative activity over lectures. An earlier study of the same redesigned undergraduate course linked classroom experience to student satisfaction and learning. Its results showed students find in-class group assignments slightly preferable to lectures in terms of generating interest and deep thinking about material presented and the application of that material (Lo, 2010b). Our study participants' satisfaction with in-class collaborative activity, along with many participants' appreciation of the classroom's inclusivity, confirm prior findings suggesting collaborative learning's effectiveness and its facilitation of mutual respect (Diaz-Vazquez et al., 2012; McKinney, 2008). Also consistent with earlier research, our results show that student satisfaction with online assignments, group/class discussions, and the course generally was associated with significantly greater learning, more so for the perceived learning measure than the final course grade measure (Levy & Merenstein, 2005; Lo, 2010a, 2010b). In the studied course, in-class collaborative learning activities that facilitated critical thinking and deep learning were central to the course's sound learning environment.

Our analysis of students' narrative comments pointed to some social processes possibly responsible for student learning. Evidence obtained suggested students find it satisfying to encounter a range of ideas and perspectives in such a course; moreover, they are most satisfied when each viewpoint in the range is afforded respect and included in learners' consideration. Obtained evidence also suggested students are aware that constructing knowledge requires involving oneself actively in a process, taking advantage of idea exchanges to strengthen understanding. When these three conditions (range of ideas, respect for all ideas, involvement in process) are met, satisfaction derived from collaborative activity appears to promote student perception of a relatively high level of learning, as well as student perception that key sociological concepts were indeed understood. When students encounter multiple perspectives and views in classrooms, their acknowledgment of diversity is enhanced. In an inclusive environment, students see their way to respecting rather than marginalizing others' views that may differ radically from their own. They start down a path leading to a more genuine understanding of social problems, through introduction to the nature of differences (Saunders & Kardia, n.d.; Schneider & Shoenberg, 1998).

Sustaining the three conditions appears linked to a pair of desired environmental aspects that guided the redesign of the studied social problems course: *in-class collaborative*

learning activities and instructor's approach to learning. At each class meeting, the students first engaged in group activities and then joined class-wide discussion; interaction was promoted inherently, and students had time to reflect on others' words before responding to them (Billson, 1986; Eglitis, 2010; Jang, 2007). Pursuing a well-crafted group activity (cooperative work) can strongly engage students in understanding materials and solving problems as they share from their earlier experiences and knowledge—the quintessence of active learning (Levy & Merenstein, 2005; Sernau, 1995). Group or collaborative activities often spark the social interactions that secure a sufficiently supportive environment to foster deep learning (Anderson, Zuiker, Taasobshirazi, & Hickey, 2007; Johnson, Johnson, & Smith, 1998). A supportive learning environment constitutes a community in which students are free to engage in critical and cognitive inquiry (Johnson & Johnson, 1999; Johnson et al., 2007). In this redesigned course, wide use was made of Socratic questioning—probing facts, exchanging ideas, and exploring knowledge's application to problems (Singleton & Newman, 2009; Yang, Newby, & Bill, 2005). Basing assignments and discussions on truly thoughtful questions and complex problems moves students toward higher cognitive process, better reflection, and deeper learning (King, 1990; Singleton & Newman, 2009; Thompson, Martin, Richards, & Brannon, 2003).

In addition to structuring the learning environment to enhance student learning, the instructor of the studied hybrid course meaningfully suspended classroom authority and power during class discussions, viewing herself as a learner encouraging other learners to voice ideas and gather up numerous perspectives to advance their construction of knowledge (Garrison, Anderson, & Archer, 2001; Rau & Heyl, 1990; Rinehart, 1999). That she viewed herself as a learner also may imply the enhanced instructor–student equality that can empower students to engage in active learning (Mishna & Rasmussen, 2001). In verbal and nonverbal gestures, the instructor communicated to the students that each was a contributor with the capacity to teach and learn (Hedley & Markowitz, 2001). Studies have found that learning environments can be made more supportive through teachers' immediacy behaviors, since these reduce the social distance between student and teacher (Arbaugh, 2001; Rodriguez, Plax, & Kearney, 1996). Even though teacher authority is institutionalized in classrooms, because this instructor worked to convey enthusiasm, a positive attitude, and a nonauthoritarian teaching style—and, in addition, used video clips—student engagement and student learning were certainly fostered (Anderson et al., 2007; Heller, Beil, Dam, & Haerum, 2010; Howard & Zoeller, 2007; Misra, 2000).

Again, we observed that students who reported high levels of satisfaction with the online assignments, group/class discussions, and the course in general were, when compared to students desiring modification of these, likelier to have perceived a higher level of personal learning associated with the course. Furthermore, those students whose survey feedback specifically acknowledged or described the construction of knowledge and the maintenance of an inclusive classroom during the course proved likelier to report more perceived learning than students who commented that knowledge construction and inclusiveness in the course needed improvement. Conceptualized as social processes, *knowledge construction* and the *inclusive classroom* seem likely to facilitate student learning, just as student satisfaction with the course and its learning activities facilitates student learning. Partial explanation of insignificant results found for hypothesized relationships between final course grade and the satisfaction and social process themes may lie in the essential uniformity of the final course grades. Neither *satisfaction with teacher* nor *presence of a variety of perspectives and views* was found by our quantitative analysis to be significantly related to perceived learning. Nevertheless, that both factors could affect how well an environment supports student

learning is clearly suggested by the fact that so many study participants commented specifically on the two.

Conclusion

Qualitative-analysis results we generated from surveyed students' narrative responses have several implications for pedagogy in sociology and other social sciences. Crucially, during class meetings teachers should exploit collaborative learning activities to bring about peer education and advance students' knowledge construction. To instigate extensive social interaction among students, instructors might include in their assignments questions and problems directly relevant to real social issues, leading students to practice critical thinking. That students in our study strongly approved of the inclusion of relevant videos should convince instructors to exploit this vehicle of student learning, as well.

And although peer education is desirable, nothing in our study suggested the college teacher's role becomes insignificant under the new paradigm. Approaches to learning taken by the instructor can, when witnessed by the students, signal to them that they can be comfortable voicing their views, because the learning environment will support them—and all are genuinely striving to understand. The welcome presence of many perspectives in the inclusive classroom, and each student's welcome involvement, certainly leads learners closer to genuine critical thinking and understanding.

The present study's results referenced a small sample of lower-division students attending a Southern research university and enrolled for the social problems course. Future studies might instead explore collaborative learning activities in classes for upper-level undergraduates or for graduate students. Furthermore, given the present study's results, securing objective measures of knowledge construction and of inclusiveness in college classrooms presents an interesting challenge and will perhaps further delineate social processes linking student satisfaction to collaborative learning activities and to thinking.

Its limitations aside, this study's results do show a close relationship between perceived student learning and collaborative activities adopted in a hybrid course (Vygotsky, 1978). By using cooperative learning activities (i.e., small-group and class discussions) at class meetings and other active learning activities online, we successfully promoted a respectful and inclusive environment, facilitating knowledge construction among our students (Johnson & Johnson, 1999; Johnson et al., 2007). This knowledge surpassed mastering what was required for a decent course grade; it also included realizing more than one perspective may deserve respect, and critically linking course materials to real-world situations.

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